Course: ELEC 491 / 591
Term: Fall / Spring
Room: TBD
Meeting Time: TBD

Vertically Integrated Projects: Undergraduate ELEC 491 / Graduate ELEC 591

Section 1 Instructor: Joseph R. Cavallaro, DCH 3042, cavallar@rice.edu
Section 2 Instructor: Gary L. Woods, AEL A225, gary.woods@rice.edu
Section 3 Instructor: Behnaam Aazhang, DCH 2017, aaz@rice.edu
Section 4 Instructor: Ray Simar, AEL A208, ray.simar@rice.edu
Section 5 Instructor: Ashutosh Sabharwal, DCH 2018, ashu@rice.edu
Section 6 Instructor: Fathi H. Ghorbel, Mech. Engr. Bldg 205, ghorbel@rice.edu

Credits: Undergraduates - 1 or 2 credits per semester repeatable up to a total of 6 credits. Graduate students - 1 credit per semester repeatable up to a total of 6 credits.

Course Summary: The Vertically Integrated Projects (VIP) Program at Rice unites undergraduate education and faculty research in a team-based context. Undergraduate Rice VIP students earn academic credits, while faculty and graduate students benefit from the design/discovery efforts of their teams. See: http://vip.rice.edu for project details.

VIP at Rice extends the academic design experience beyond a single semester. It provides the time and context to learn and practice professional skills, to make substantial contributions, and experience different roles on large multidisciplinary design/discovery teams.

The long-term nature of VIP creates an environment of mentorship, with faculty and graduate students mentoring teams, experienced students mentoring new members, and students moving into leadership roles as others graduate. Rice VIP teams are comprised of students from freshmen to seniors, with a variety of majors and backgrounds.

Course Objectives and Learning Outcomes:
Undergraduate and Graduate students will conduct independent project research under the direction of a VIP team faculty member. It is expected that the project research will be of sufficient importance and quality that positive results could lead to internal and external publication.

Students should work out a schedule and location to meet periodically with their advisor.

Learning Outcomes:
Students effectively identify and define relevant research topics in Electrical and Computer Engineering and conduct independent project research with results that advance the state of the art in the field.

Grade Policies:
Students get course credit on letter grad basis for the work they do on their VIP project. Students should consult with their VIP team faculty advisor regarding grading.

ELEC 591 Graduate Students:
Graduate students have the additional role of team leader and mentor to the undergraduate students in their VIP team. The graduate students will assist in report preparation and review and will also provide background literature and tutorials for the undergraduates in ELEC 491 in their VIP team.

Rice Honor Code:

In this course, all students will be held to the standards of the Rice Honor Code, a code that you pledged to honor when you matriculated at this institution. If you are unfamiliar with the details of this code and how it is administered, you should consult the Honor System Handbook at http://honor.rice.edu/honor-system-handbook/. This handbook outlines the University's expectations for the integrity of your academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process.

Disability Support Services:

If you have a documented disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Disability Support Services (Allen Center, Room 111, adarice@rice.edu , x5841) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

Syllabus Change Policy:

This syllabus is only a guide for the course and is subject to change with advance notice.